# **Resource Summary Report**

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# **Mind Research Network - COINS**

RRID:SCR\_000805

Type: Tool

## **Proper Citation**

Mind Research Network - COINS (RRID:SCR\_000805)

#### Resource Information

URL: http://coins.mrn.org/

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**Description:** A web-based neuroimaging and neuropsychology software suite that offers versatile, automatable data upload/import/entry options, rapid and secure sharing of data among Pls, querying and export all data, real-time reporting, and HIPAA and IRB compliant study-management tools suitable to large institutions as well as smaller scale neuroscience and neuropsychology researchers. COINS manages over over 400 studies, more than 265,000 clinical neuropsychological assessments, and 26,000 MRI, EEG, and MEG scan sessions collected from 18,000 participants at over ten institutions on topics related to the brain and behavior. As neuroimaging research continues to grow, dynamic neuroinformatics systems are necessary to store, retrieve, mine and share the massive amounts of data. The Collaborative Informatics and Neuroimaging Suite (COINS) has been created to facilitate communication and cultivate a data community. This tool suite offers versatile data upload/import/entry options, rapid and secure sharing of data among PIs, guerying of data types and assessments, real-time reporting, and study-management tools suitable to large institutions as well as smaller scale researchers. It manages studies and their data at the Mind Research Network, the Nathan Kline Institute, University of Colorado Boulder, the Olin Neuropsychiatry Research Center (at) Hartford Hospital, and others. COINS is dynamic and evolves as the neuroimaging field grows. COINS consists of the following collaborationcentric tools: \* Subject and Study Management: MICIS (Medical Imaging Computer Information System) is a centralized PostgreSQL-based web application that implements best practices for participant enrollment and management. Research site administrators can easily create and manage studies, as well as generate reports useful for reporting to funding agencies. \* Scan Data Collection: An automated DICOM receiver collects, archives, and imports imaging data into the file system and COINS, requiring no user intervention. The database also offers scan annotation and behavioral data management, radiology review event reports, and scan time billing. \* Assessment Data Collection: Clinical data gathered

from interviews, questionnaires, and neuropsychological tests are entered into COINS through the web application called Assessment Manager (ASMT). ASMT's intuitive design allows users to start data collection with little or no training. ASMT offers several options for data collection/entry: dual data entry, for paper assessments, the Participant Portal, an online tool that allows subjects to fill out questionnaires, and Tablet entry, an offline data entry tool. \* Data Sharing: De-identified neuroimaging datasets with associated clinical-data, cognitive-data, and associated meta-data are available through the COINS Data Exchange tool. The Data Exchange is an interface that allows investigators to request and share data. It also tracks data requests and keeps an inventory of data that has already been shared between users. Once requests for data have been approved, investigators can download the data directly from COINS.

**Abbreviations: COINS** 

**Synonyms:** Mind Research Network - Collaborative Informatics and Neuroimaging Suite, Collaborative Informatics Neuroimaging Suite, Collaborative Informatics and Neuroimaging Suite

**Resource Type:** data repository, data or information resource, service resource, data set, storage service resource

**Defining Citation: PMID:22275896** 

**Keywords:** mri, fmri, neuropsychological assessment, neuroimaging, diffusion tensor imaging assay, magnetic resonance imaging assay, functional mri assay, diffusion magnetic resonance imaging, magnetoencephalography, electroencephalography, brain, behavior, data sharing, data management, clinical, computed tomography, magnetic resonance, single photon emission computed tomography, positron emission tomography, clinical assessment clinical neuroinformatics, image collection, mri 2d image, database application

Related Condition: Aging

Funding: NIBIB 1 R01 EB 000840;

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Resource Name: Mind Research Network - COINS

Resource ID: SCR\_000805

Alternate IDs: nlx\_144067

Alternate URLs: http://www.nitrc.org/projects/coins

**License:** GNU General Public License

**Record Creation Time:** 20220129T080203+0000

**Record Last Update:** 20250525T031845+0000

### **Ratings and Alerts**

No rating or validation information has been found for Mind Research Network - COINS.

No alerts have been found for Mind Research Network - COINS.

#### Data and Source Information

Source: SciCrunch Registry

### **Usage and Citation Metrics**

We found 20 mentions in open access literature.

**Listed below are recent publications.** The full list is available at <u>NIF</u>.

Skouras S, et al. (2019) The effects of psychiatric history and age on self-regulation of the default mode network. NeuroImage, 198, 150.

Wu L, et al. (2018) An approach to directly link ICA and seed-based functional connectivity: Application to schizophrenia. NeuroImage, 179, 448.

Lancaster J, et al. (2018) Bayesian Optimization for Neuroimaging Pre-processing in Brain Age Classification and Prediction. Frontiers in aging neuroscience, 10, 28.

Kiparizoska S, et al. (2017) Disrupted Olfactory Integration in Schizophrenia: Functional Connectivity Study. The international journal of neuropsychopharmacology, 20(9), 740.

Nashiro K, et al. (2017) Resting-state networks associated with cognitive processing show more age-related decline than those associated with emotional processing. Neurobiology of aging, 54, 152.

, et al. (2017) Improving data availability for brain image biobanking in healthy subjects: Practice-based suggestions from an international multidisciplinary working group. NeuroImage, 153, 399.

Lerman-Sinkoff DB, et al. (2017) Multimodal neural correlates of cognitive control in the Human Connectome Project. NeuroImage, 163, 41.

Aine CJ, et al. (2017) Multimodal Neuroimaging in Schizophrenia: Description and Dissemination. Neuroinformatics, 15(4), 343.

Shoemaker JM, et al. (2016) Evolution of universal review and disclosure of MRI reports to research participants. Brain and behavior, 6(3), e00428.

Panta SR, et al. (2016) A Tool for Interactive Data Visualization: Application to Over 10,000 Brain Imaging and Phantom MRI Data Sets. Frontiers in neuroinformatics, 10, 9.

Wang L, et al. (2016) SchizConnect: Mediating neuroimaging databases on schizophrenia and related disorders for large-scale integration. NeuroImage, 124(Pt B), 1155.

Plis SM, et al. (2016) COINSTAC: A Privacy Enabled Model and Prototype for Leveraging and Processing Decentralized Brain Imaging Data. Frontiers in neuroscience, 10, 365.

Gopal S, et al. (2016) Approaches to Capture Variance Differences in Rest fMRI Networks in the Spatial Geometric Features: Application to Schizophrenia. Frontiers in neuroscience, 10, 85.

Zhao G, et al. (2016) Fractal Dimension Analysis of Subcortical Gray Matter Structures in Schizophrenia. PloS one, 11(5), e0155415.

Pelletier-Baldelli A, et al. (2015) Intrinsic Functional Connectivity in Salience and Default Mode Networks and Aberrant Social Processes in Youth at Ultra-High Risk for Psychosis. PloS one, 10(8), e0134936.

Orr JM, et al. (2015) Organization of the Human Frontal Pole Revealed by Large-Scale DTI-Based Connectivity: Implications for Control of Behavior. PloS one, 10(5), e0124797.

Haselgrove C, et al. (2014) A simple tool for neuroimaging data sharing. Frontiers in neuroinformatics, 8, 52.

Zhou Y, et al. (2014) Multiparametric MRI characterization and prediction in autism spectrum disorder using graph theory and machine learning. PloS one, 9(6), e90405.

Mennes M, et al. (2013) Making data sharing work: the FCP/INDI experience. NeuroImage, 82, 683.

Scott A, et al. (2011) COINS: An Innovative Informatics and Neuroimaging Tool Suite Built for Large Heterogeneous Datasets. Frontiers in neuroinformatics, 5, 33.